APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/006,608	11/30/2001	Michael Neal	DEM1P008	1143

36088   7590   03/17/2006

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EXAMINER
CANGIALOSI, SALVATORE A

ART UNIT	PAPER NUMBER
3621	

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 December 2005</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-14 and 16-25* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-14, 16-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>10/6/05</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

1.   The following is a quotation of 35 U.S.C. ﹚ 103 which forms

the basis for all obviousness rejections set forth in this Office

action:

> A patent may not be obtained though the invention is not
> identically disclosed or described as set forth in section
> 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that
> the subject matter as a whole would have been obvious at the
> time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which
> the invention was made.
>
> Subject matter developed by another person, which qualifies
> as prior art only under subsection (f) or (g) of section 102
> of this title, shall not preclude patentability under this
> section where the subject matter and the claimed invention
> were, at the time the invention was made, owned by the same
> person or subject to an obligation of assignment to the same
> person.

2.   Claims 1, 3-14, 16-25 are rejected under 35 U.S.C. ﹚ 103 as

being unpatentable over Ouimet et al (6094641) in view of Hartman

et al (5987425) and either Delurgio et al (6553352) or Smith ("A

General Bayesian Linear Model"(4/72)), all cited by the

applicants and Vanderbei and Joslin et al(6272483)(newly cited).

        Regarding claim 1, Ouimet et al (See abstract,

Figs. 1- 6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1,

12 and 21) disclose a means for optimizing the price of an item

based on a selected demand model employing a grid (See Fig. 6)to

set price in an automated fashion in a digital computer

substantially as claimed. The differences between the above and

the claimed invention is the use of a specific model and product

subsets. It is noted that it is believed that the price is always determined for a subset of items that is functionally equivalent to the claimed limitations. Hartman et al (See abstract, and Fig. 1 show product subsets that is the functional equivalent of the claimed limitations. Delurgio et al (See abstract and claim 34) or Smith show Bayesian models employed in optimization of price (note that these are but a few of the cited references employing Bayesian models in price optimization. Vanderbei (See Figs. 2, 5, and 6, Col. 11, lines 35-50) show integer problem solution as being an old and obvious price optimization mathematical solution in price modeling. Joslin et al (See abstract, Figs. 1-3, Col. 5. lines 15-25, Col. 6, lines 35-45, Col. 11, lines 5-45) show optimal linear programming solutions of the pricing problem employing subsets and relaxation. It is noted that the newly added limitations merely describe standard linear programming solution for optimization. It would have been obvious to the person having ordinary skill in this art to provide a similar arrangement for Ouimet et al because the suggestion to employ any demand model(col. 2, line 60) teaches that all models are conventional functional equivalents with respect to the claim limitations in price optimization. Regarding selection limitations of claim 3, Delurgio et al(Col. 11, lines 20 -30) show product mix selection which is a functional equivalent of the claim limitations. Regarding optimization limitations of claim 4, Ouimet et al (See

abstract, Figs. 1- 6, Col. 2, lines 55-65, Col. 4, lines 35-60,

claims 1, 12 and 21) disclose a means for optimizing the price of

an item based on a selected demand model employing a grid (See

Fig. 6)to set price which are the functional equivalents of the

claim limitations. Regarding the data limitations of claim 5,

Ouimet et al (See abstract, Figs. 1- 6, Col. 2, lines 55-65, Col.

4, lines 35-60, claims 1, 12 and 21) disclose a means for

optimizing the price of an item based on a selected demand model

employing a grid (See Fig. 6)to set price including prior price

history which is a functional equivalent of the claim

limitations. Regarding the data limitations of claim 6, Ouimet

et al (See abstract, Figs. 1- 6, Col. 2, lines 55-65, Col. 4,

lines 35-60, claims 1, 12 and 21) disclose a means for optimizing

the price of an item based on a selected demand model employing a

grid (See Fig. 6)to set price including prior price history which

is a functional equivalent of the claim limitations. Regarding

the rule limitations of claim 7, Delurgio et al(Figs. 14, 34-38)

show rule criteria including a rule generator(elements 416-420)

which is a functional equivalent of the claim limitations.

Regarding the rule limitations of claim 8, Delurgio et al(Figs.

14, 34-38) show rule criteria including a rule generator(elements

416-420) which is a functional equivalent of the claim

limitations. Regarding optimization limitations of claim 9,

Ouimet et al (See abstract, Figs. 1- 6, Col. 2, lines 55-65, Col.

4, lines 35-60, claims 1, 12 and 21) disclose a means for

optimizing the price of an item based on a selected demand model
employing a grid (See Fig. 6)to set price which are the
functional equivalents of the claim limitations. Regarding the
data limitations of claim 10, Ouimet et al (See abstract, Figs.
1- 6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1, 12 and
21) disclose a means for optimizing the price of an item based on
a selected demand model employing a grid (See Fig. 6)to set price
including prior price history which is a functional equivalent of
the claim limitations. Regarding the data limitations of claim
11, Ouimet et al (See abstract, Figs. 1- 6, Col. 2, lines 55-65,
Col. 4, lines 35-60, claims 1, 12 and 21) disclose a means for
optimizing the price of an item based on a selected demand model
employing a grid (See Fig. 6) to set price including prior price
history which is a functional equivalent of the claim
limitations. Regarding the rule limitations of claim 12,
Delurgio et al(Figs. 14, 34-38) show rule criteria including a
rule generator(elements 416-420) which is a functional equivalent
of the claim limitations. Regarding claim 1, Ouimet et al (See
abstract, Figs. 1- 6, Col. 2, lines 55-65, Col. 4, lines 35-60,
claims 1, 12 and 21) disclose a means for optimizing the price of
an item based on a selected demand model employing a grid (See
Fig. 6)to set price in an automated fashion in a digital computer
substantially as claimed. The differences between the above and
the claimed invention is the use of a specific model and product
subsets. It is noted that it is believed that the price is

always determined for a subset of items that is functionally

equivalent to the claimed limitations. Hartman et al (See

abstract, and Fig. 1 show product subsets that is the functional

equivalent of the claimed limitations. Delurgio et al (See

abstract and claim 34) or Smith show Bayesian models employed in

optimization of price (note that these are but a few of the cited

references employing Bayesian models in price optimization.

Vanderbei (See Figs. 2, 5, and 6, Col. 11, lines 35-50) show

integer problem solution as being an old and obvious price

optimization mathematical solution in price modeling. Joslin et

al (See abstract, Figs. 1-3, Col. 5. lines 15-25, Col. 6, lines

35-45, Col. 11, lines 5-45) show optimal linear programming

solutions of the pricing problem employing subsets and

relaxation. It is noted that the newly added limitations merely

describe standard linear programming solution for optimization.

It would have been obvious to the person having ordinary skill in

this art to provide a similar arrangement for Ouimet et al

because the suggestion to employ any demand model(col. 2, line

60) teaches that all models are conventional functional

equivalents with respect to the claim limitations in price

optimization. Regarding selection limitations of claim 16,

Delurgio et al(Col. 11, lines 20 -30) show product mix selection

which is a functional equivalent of the claim limitations.

Regarding optimization limitations of claim 17, Ouimet et al (See

abstract, Figs. 1- 6, Col. 2, lines 55-65, Col. 4, lines 35-60,

claims 1, 12 and 21) disclose a means for optimizing the price of

an item based on a selected demand model employing a grid (See

Fig. 6)to set price which are the functional equivalents of the

claim limitations. Regarding the data limitations of claim 18,

Ouimet et al (See abstract, Figs. 1- 6, Col. 2, lines 55-65, Col.

4, lines 35-60, claims 1, 12 and 21) disclose a means for

optimizing the price of an item based on a selected demand model

employing a grid (See Fig. 6)to set price including prior price

history which is a functional equivalent of the claim

limitations. Regarding the data limitations of claim 19, Ouimet

et al (See abstract, Figs. 1- 6, Col. 2, lines 55-65, Col. 4,

lines 35-60, claims 1, 12 and 21) disclose a means for optimizing

the price of an item based on a selected demand model employing a

grid (See Fig. 6)to set price including prior price history which

is a functional equivalent of the claim limitations. Regarding

the rule limitations of claim 20, Delurgio et al(Figs. 14, 34-38)

show rule criteria including a rule generator(elements 416-420)

which is a functional equivalent of the claim limitations.

Regarding claim 21, Ouimet et al (See abstract, Figs. 1- 6, Col.

2, lines 55-65, Col. 4, lines 35-60, claims 1, 12 and 21)

disclose a means for optimizing the price of an item based on a

selected demand model employing a grid (See Fig. 6)to set price

in an automated fashion in a digital computer substantially as

claimed. The differences between the above and the claimed

invention is the use of a specific model and product subsets. It

is noted that it is believed that the price is always determined

for a subset of items that is functionally equivalent to the

claimed limitations. Hartman et al (See abstract, and Fig. 1

show product subsets that is the functional equivalent of the

claimed limitations. Delurgio et al (See abstract and claim 34)

or Smith show Bayesian models employed in optimization of price

(note that these are but a few of the cited references employing

Bayesian models in price optimization. Vanderbei (See Figs. 2, 5,

and 6, Col. 11, lines 35-50) show integer problem solution as

being an old and obvious price optimization mathematical solution

in price modeling. Joslin et al (See abstract, Figs. 1-3, Col. 5.

lines 15-25, Col. 6, lines 35-45, Col. 11, lines 5-45) show

optimal linear programming solutions of the pricing problem

employing subsets and relaxation. It is noted that the newly

added limitations merely describe standard linear programming

solution for optimization. It would have been obvious to the

person having ordinary skill in this art to provide a similar

arrangement for Ouimet et al because the suggestion to employ any

demand model(col. 2, line 60) teaches that all models are

conventional functional equivalents with respect to the claim

limitations in price optimization. Regarding claim 22, Ouimet et

al (See abstract, Figs. 1- 6, Col. 2, lines 55-65, Col. 4, lines

35-60, claims 1, 12 and 21) disclose a means for optimizing the

price of an item based on a selected demand model employing a

grid (See Fig. 6)to set price in an automated fashion in a

digital computer substantially as claimed. The differences

between the above and the claimed invention is the use of a

specific model and product subsets. It is noted that it is

believed that the price is always determined for a subset of

items that is functionally equivalent to the claimed limitations.

 Hartman et al (See abstract, and Fig. 1 show product subsets

that is the functional equivalent of the claimed limitations.

Delurgio et al (See abstract and claim 34) or Smith show Bayesian

models employed in optimization of price (note that these are but

a few of the cited references employing Bayesian models in price

optimization. Vanderbei (See Figs. 2, 5, and 6, Col. 11, lines

35-50) show integer problem solution as being an old and obvious

price optimization mathematical solution in price modeling.

Joslin et al (See abstract, Figs. 1-3, Col. 5. lines 15-25, Col.

6, lines 35-45, Col. 11, lines 5-45) show optimal linear

programming solutions of the pricing problem employing subsets

and relaxation. It is noted that the newly added limitations

merely describe standard linear programming solution for

optimization. It would have been obvious to the person having

ordinary skill in this art to provide a similar arrangement for

Ouimet et al because the suggestion to employ any demand

model(col. 2, line 60) teaches that all models are conventional

functional equivalents with respect to the claim limitations in

price optimization. Regarding claim 23, Ouimet et al (See

abstract, Figs. 1- 6, Col. 2, lines 55-65, Col. 4, lines 35-60,

claims 1, 12 and 21) disclose a means for optimizing the price of

an item based on a selected demand model employing a grid (See

Fig. 6)to set price in an automated fashion in a digital computer

substantially as claimed. The differences between the above and

the claimed invention is the use of a specific model and product

subsets. It is noted that it is believed that the price is

always determined for a subset of items that is functionally

equivalent to the claimed limitations. Hartman et al (See

abstract, and Fig. 1 show product subsets that is the functional

equivalent of the claimed limitations. Delurgio et al (See

abstract and claim 34) or Smith show Bayesian models employed in

optimization of price (note that these are but a few of the cited

references employing Bayesian models in price optimization.

Vanderbei (See Figs. 2, 5, and 6, Col. 11, lines 35-50) show

integer problem solution as being an old and obvious price

optimization mathematical solution in price modeling. Joslin et

al (See abstract, Figs. 1-3, Col. 5. lines 15-25, Col. 6, lines

35-45, Col. 11, lines 5-45) show optimal linear programming

solutions of the pricing problem employing subsets and

relaxation. It is noted that the newly added limitations merely

describe standard linear programming solution for optimization.

It would have been obvious to the person having ordinary skill in

this art to provide a similar arrangement for Ouimet et al

because the suggestion to employ any demand model(col. 2, line

60) teaches that all models are conventional functional

equivalents with respect to the claim limitations in price

optimization. Regarding claim 24, Ouimet et al (See abstract,

Figs. 1- 6, Col. 2, lines 55-65, Col. 4, lines 35-60, claims 1,

12 and 21) disclose a means for optimizing the price of an item

based on a selected demand model employing a grid (See Fig. 6)to

set price in an automated fashion in a digital computer

substantially as claimed. The differences between the above and

the claimed invention is the use of a specific model and product

subsets. It is noted that it is believed that the price is

always determined for a subset of items that is functionally

equivalent to the claimed limitations. Hartman et al (See

abstract, and Fig. 1 show product subsets that is the functional

equivalent of the claimed limitations. Delurgio et al (See

abstract and claim 34) or Smith show Bayesian models employed in

optimization of price (note that these are but a few of the cited

references employing Bayesian models in price optimization.

Vanderbei (See Figs. 2, 5, and 6, Col. 11, lines 35-50) show

integer problem solution as being an old and obvious price

optimization mathematical solution in price modeling. Joslin et

al (See abstract, Figs. 1-3, Col. 5. lines 15-25, Col. 6, lines

35-45, Col. 11, lines 5-45) show optimal linear programming

solutions of the pricing problem employing subsets and

relaxation. It is noted that the newly added limitations merely

describe standard linear programming solution for optimization.

It would have been obvious to the person having ordinary skill in

this art to provide a similar arrangement for Ouimet et al

because the suggestion to employ any demand model(col. 2, line

60) teaches that all models are conventional functional

equivalents with respect to the claim limitations in price

optimization. Regarding the function limitations of claim 25,

Delurgio et al(Figs. 14, 34-38) show rule criteria including a

rule generator(elements 416-420) which is a functional equivalent

of the claim limitations.

Examiner's Note: Although Examiner has cited particular

columns, line numbers and figures in the references as applied to

the claims above for the convenience of the applicant(s), the

specified citations are merely representative of the teaching of

the prior art that are applied to specific limitations within the

individual claim and other passages and figures may apply as

well. It is respectfully requested that the applicant(s), in

preparing the response, fully consider the items of evidence in

their entirety as potentially teaching all or part of the claimed

invention, as well as the context of the passage as taught by the

prior art or disclosed by the Examiner.

Applicants arguments filed 12/30/2005 are moot due the new

ground of rejection. The claims are no more than obvious

mathematical solutions by linear programming of the pricing

optimization problem by constraint relaxation.

3.   35 USC 101 reads as follows:

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title".

4.   Claim 22 is rejected under 35 USC 101 because the claimed invention is directed to non-statutory subject matter.

The claim does not present a concrete, tangible or useful result.

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Claim 22 is outside the four statutory classes of invention since they are recite an electromagnetic signal. Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage , or the strength of a magnetic field, define energy or magnetism, per se and as such are nonstatutory phenomena(O'Reilly, 56 US(15 How.) at 112-114). Moreover, it does not appear that the claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in 35 USC 101. First, a claimed signal is not a process under 35 USC 101 because it is not a series of steps. The claimed signal has no physical structure, does not itself perform any useful, concrete and tangible result and, this, does not fit within the definition of a machine. The claimed signal is not matter, but a form of energy, and therefore is not a composition of matter. The claimed signal, a form of energy, does not fall within either of the two accepted definition of a manufacture which require either a physical substance or physical substance which a signal does not have. The claimed carrier wave signal falls outside the four statutory classes of invention.

Any inquiry concerning this communication should be directed to Salvatore Cangialosi at telephone number **(571) 272-6927**. The examiner can normally be reached 6:30 Am to 5:00 PM, Tuesday through Friday. If attempts to reach the examiner by telephone

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are unsuccessful, the examiner's supervisor, James Trammell, can

be reached at **(571) 272-6712**.

Any response to this action should be mailed to:

      Mail Stop Amendment
      Commissioner for Patents
      P.O. Box 1450
      Alexandria, VA 22313-1450

      or faxed to (571)273-8300

Hand delivered responses should be brought to

      United States Patent and Trademark Office
      Customer Service Window
      Randolph Building
      401 Dulany Street
      Alexandria, VA 22314

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SALVATORE CANGIALOSI
PRIMARY EXAMINER
ART UNIT 3621